

DATECS

**ELECTRONIC CASH REGISTER
DATECS DP-500Plus**

User manual

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INTRODUCTION

This manual presents the technical and functional characteristics of the electronic cash register DATECS DP-500Plus and its modes of operation. All important instructions are given in order to prepare the ECR for operation, for their correct usage and maintenance.

The possibilities of DATECS DP-500Plus conform to the customer service requirements and financial accounting in shops, supermarkets, pharmacies, restaurants or other kinds of trade organizations. The cash registers ensures complete accountancy for the manager of the trade organisation and for the need of taxation authorities.

**WE WISH YOU PLEASANT WORK WITH THE ELECTRONIC CASH REGISTER
DATECS DP-500Plus!**

**MAIN FUNCTION AND TECHNICAL CHARACTERISTICS of
DATECS DP-500Plus**

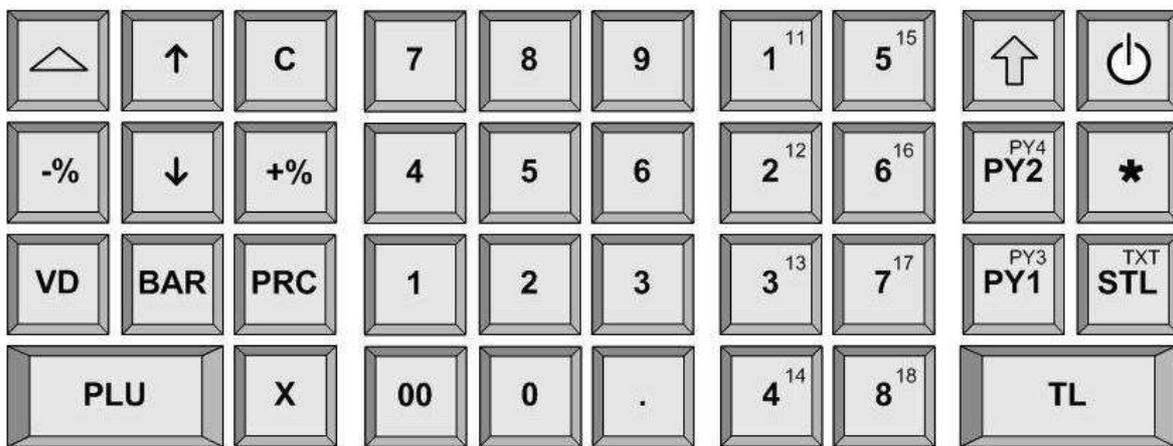
Function / Parameter / Feature	Коментар
Maximal number of items which can be stored into database	Up to 30 000
PLU name length	Up to 22 characters
Barcode types	EAN-13, EAN-8, UPC, Barcode from a scale labels
Tax type	VAT (TVSH), up to 8 tax groups
Stands	Up to 99
Departments	Up to 99
Number of operators	Up to 30
Maximal number of sales in one receipt	More than 300 sales
Receipt copy	Up to 1 copy
Types of service	- control of store exit; - ECR which serves one stand
Types of payment	1) Cash, cheque, credit card, coupon 2) Cash with alternative currency: EUR
ECR operation modes	- R / Registration - X / Report; - Z / Report with clearing; - P / Programming; - F / Fiscal memory; - S / Service mode; - T / Test; - Communication with PC
Interface and protocol for Online communication with PC	- TCP-IP via Ethernet; - Special DATECS protocol for communication with cash registers via RS-232C;
Online communication with PC:	- for programming, reading and report of the article data base; - for configuration of the cash register parameters; - parameters request in REG mode for : * articles, percentage discounts or surcharges for time intervals, percentage discounts or surcharges for a certain customer, for payment with local card and so on.
Programs for Online communication with a PC	- Internet Explorer or another browser. - ECR Tool , ArchInterpreter, ArchiveExporter and so on.
Journal	With simultaneous print
Receipt archive for storage purposes, readable from a computer	Up to 10 000 receipts with up to 30 sales per receipt
Fiscal memory	Non-volatile, 1825 reports
Thermal printer, 3-inch	Type MLT-389
Printer speed	12 lines/second
Characters per line	24
Graphics logo	Supported size 384 x 96 dots
Consumable – thermal paper	- width 37 mm for receipt and journal - thickness from 60 to 72 µm - roll diameter up to 65 mm
Operator's display Customer's display	- Graphic LCD, up to 8 lines and up to 22 characters per line - Alpha-numeric LCD 2 lines x 16 characters
Keyboard	38 keys
Power supply	Adapter- DC 12V/2500mA, input -100-240V 50-60Hz
LI-Ion Battery	Option

Number of printed lines when adapter plugged out	No less than 10 000 text lines
Clock / Calendar	Works up to 90 after the power supply is turned off
Working temperature	from 0 ⁰ C to +45 ⁰ C
Dimensions	Length/height /width - 240 / 275 / 120mm
Weight, kg	1.490 (with 2 paper rolls)
Interface and additional devices	<ul style="list-style-type: none">- Ethernet - 1 pcs. for local network connection,- Drawer output – 1 pcs.,- RS-232C - 2 pcs., each of them can be configured in REG mode to work with:<ul style="list-style-type: none">bar-code reader;scale;external customer display;connection with PC.- Interface for external keyboard for:<ul style="list-style-type: none">* quick article selection;* quick text input;

ELECTRONIC CASH REGISTER VIEW



KEYBOARD



UNPACKING

After you take out the ECR from its carton box and remove the pickings and the plastic cover, you will find:

- a user manual;
- a device passport.



DO NOT install the device under direct sunlight or near heating apparatus!

Put the ECR in a place suitable for work where both the customer and the operator can see the information displayed.

DO NOT install the device in locations with heavy dust!

SWITCHING THE ECR ON/OFF

The ECR comes complete with mains adapter. The adapter is intended to operate with 220VAC +/- 22-33V / 50Hz input voltage.

The ECR can be switched on by pressing the  key. On the display is shown the main menu.

The ECR is turn off from the <<MAIN MENU>> after pressing  or by choosing 9 from the menu.



The ECR adapter should not be plugged into a connection block together with other powerful energy consumers (refrigerators, freezers, ovens, electromotor etc.)



Turn the ECR mains adapter on to charge the built in accumulator 24 hours before starting to use the ECR!



Before starting work, check whether there is paper inserted into ECR!

LOADING THE PAPER

- Remove the printer cover;
- Lift the internal cover;
- Place the paper roll;
- Pull the paper roll out about 25-30 cm;
- Close the internal cover and press it slightly;
- Store the tape for journal printing to the end of the winding roll and turn the roll back to its place;
- Close the printer cover;

-To move the paper use  till the tapes shows up over the slot;

- Press .

MODES OF OPERATION

The ECR supports several modes of operation which allow quick access to all parameters and their change, print of reports, communication with a computer and sales from the keyboard. The different menus have descriptions and a mistake by the operator will lead to an error message.

After turning the ECR on (with the key ) on the display is shown <<MAIN MENU>>:

<< MAIN MENU >>

1) **Registration**
 2) **X Reports**
 3) **Z Reports**
 4) **Programming**
 5) **Fiscal memory**

The main menu gives access to the following modes:

Mode number	Description
1	R - Registering of the sales
2	X - ECR Reports
3	Z - ECR Reports with clearing
4	P - Programming the ECR settings
5	F - Fiscal memory
6	C - Connection with PC
7	S - Service mode
8	T - Control tests
9	OFF - Turning off the ECR when it is in ' OFF ' mode

1. Choosing an operation mode

Each mode can be accessed the following way:

-with a key from the keyboard

-with the help of keys  and  select the mode and choose it by pressing 

With the key  you can exit any mode and return to the previous menu.

2. Access to modes:

The operators don't have equal rights to accessing the modes. The access permissions for the operators are:

- Operators 1..23 (cashiers) have access only to mode **R**
- Operators 24, 25 have access to modes **R** and **X**
- Operators 26, 27 have access to modes **R**, **X** and **Z**
- Operators 28, 29, 30 (managers) have access to modes **R**, **X**, **Z**, **P**, **F**
- All operators have access to mode **T (tests)** and **communication with PC**.

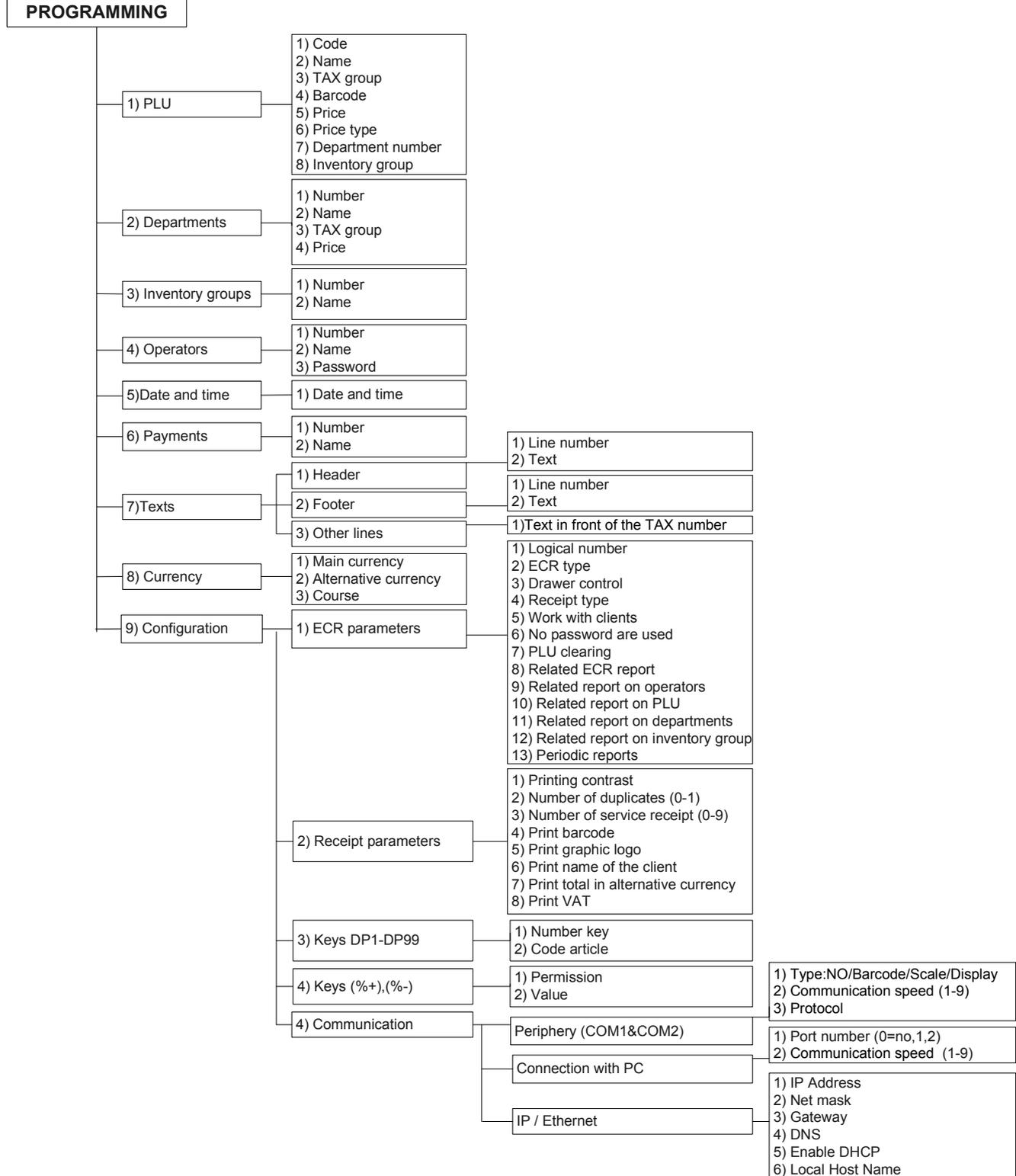
After pressing a key to select a mode, if the mode requires a password, an invitation to enter the operator's password is shown on the display. To access the mode, the operator should enter his password and then to press the **<TOTAL>** key.

PROGRAMMING MODE

If you are programming your ECR by yourself read this chapter carefully.

If your ECR is already programmed by a service specialist, skip this chapter and read the chapter MODE R – “REGISTERING”.

“PROGRAMMING” mode allows to program the main parameters grouped by the way they are used in the work of the cash register. Every parameter is accessed through the different menus. The parameters are changed in Programming mode after their value is shown on the display. The parameters, which can be programmed, are accessible according the following diagram:



To access "Programming" mode:

1. Turn the ECR on. On the display is shown the main menu:

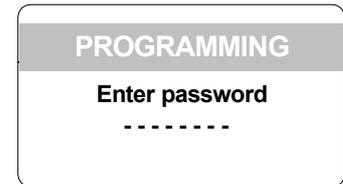


2. To access "Programming" mode, press key  or with key  select "4). Programming" and

choose it with 

3. Enter a password (sequence of digit keys)

and confirm with 



4. Choose the parameters you want to change:

-  Programming articles
-  Programming departments
-  Programming inventory groups
-  Programming operators
-  Date/time settings
-  Programming payment types
-  Programming text in receipt
-  Programming currency
-  Programming configuration

5. Parameter values are changed using the keys functions in Programming mode.

Key functions in 'PROGRAMMING' mode

Every parameter has fields, which define its characteristics. Some of the parameters have more than one field. For example articles have up to 30 000 fields – the maximum number of programmable articles, each of them having different fields – name, price, quantity, etc.

To program a parameter enter Programming mode. Entering programming mode is done automatically by choosing a field of the parameter which will be changed. Symbol and digit fields can be edited. When programming fields with digit values it is possible to enter only digits from a range, defined by the parameter (see "PARAMETER DESCRIPTION"). When editing fields with symbol values all symbols which the ECR supports can be entered – Cyrillic, Latin and special symbols.

The key functions in 'PROGRAMMING' mode are:

-  Moving to a field with higher number (for articles, departments, item groups, operators and payments)
-  Moves to the previous field
-  Moving to a row with higher number
-  Moving to a row with lower number
-  Positions on the first free article code.
-  Deletes the article if the turnover and quantity are zero
-  Access the mode Edit of the symbol field and visualize the location of the symbols on the keys.
-  Access the mode Edit of the symbol field.
-  Writing the information entered into the memory.
-  Clearing the field's contents.

Pressing a digit or department key from the keyboard of the ECR or with keys 21 to 60 from the external keyboard enters a symbol in the current field.

Functions of the keys in programming mode of the symbol field:

-  Moves to the next symbol
-  Returns to the previous symbol
-  Exit the editing field
-  Exit the editing field
-  Deletes the symbol right of the pointer
-  Deletes the symbol left of the pointer

	Moves to the end of the field
	Moves to the beginning of the field
	Shows or removes a help display with the positions of the symbols on the keyboard
	Writing the information entered into memory and exiting the field
	Choice of symbols and special characters
	Switch to Cyrillic
	Switch to Latin
	Switch between small and capital letters
	Clearing the field's content



*The character "^" is assumed as a service character when printing. When programming text, the character after "^" is printed in **(BOLD)** and the first character "^" is not printed.*

PARAMETER DESCRIPTION

1. Article parameters

The ECR can store up to 30 000 articles (entries), each having the following fields

Field No	Description	Range	Comment
1	Article code	Up to 15 digits	Nomenclature code of the article
2	Name	Up to 22 characters	Default: interval
3	Tax group	1÷8	Default: 0 If 0 - the use of this item is forbidden.
4	Bar-code	Up to 13 digits	Default: 0
5	Price	Up to 9 digits	Default: 0.00
6	Price type	0,1,2	A sale is possible: 0: Only with the programmed price 1: With a programmed or free price 2: With a price less or equal to the programmed price
7	Department number	0÷99	Default: 0
8	Inventory group number	1÷99	Default: 1



An article can not be written into the memory if its name (field 2) and tax group (field 3) are empty.

A new article can be programmed in «New article» mode, which can be accessed by 2 ways:



-the number of the not programmed article is entered in the field «Article code» and TL pressed.



-from any field by pressing the key PLU the number of the first not programmed article is shown on the display.

Example for article programming

1. Enter programming mode.

(from <<MAIN MENU>>, press 4, enter the password, press TL, then press 1)

2. On the display is shown the code and name of the first programmed article (if there is a programmed article) or the code and name of the article with code 1 (if there is no programmed article):

Code: 1
Name:
 Article code: 1
 Name:

3. Enter the number of an article, for example 10, and press TL.



**** NEW ARTICLE ****
Article code:
 10
Name:



4. With down arrow move to the name field.

5. Press  and  to visualize the location of the keyboard characters (Latin) on the display.

A	B	C	D	E	↑ ESC	ABC
F	G	H	I	J	EN BG	1
K	L	M	N	O	Aa 1/2	
^	P	Q	R	←		

6. Enter the article name ("MILK") in the following order:    

7. Confirm with .

8. Enter the tax number of the article  and confirm with .

9. If the article has a bar-code, enter it with the digit keys and confirm with  or scan it with a bar-code reader. If the article doesn't have a bar-code move to the next price field with the key .

10. Enter a price (for example press     for the price 0,78lv.) .

11. Confirm by pressing .

Code:10	
Name:MILK	
Price:	0.78
Price type:	0

12. Exit programming mode by pressing .

In a similar way program the rest of the article parameters.

2. Department parameters

You can program up to 99 departments. Changing the department parameters is allowed only after a daily report with clearing.

Field No	Parameter meaning	Range	Description
1	Department number	1 - 99	
2	Department name	Up to 22 symbols	Default: Department X where X is the number of the respective department
3	Tax group	From 1 to 8	Default: 2
4	Department price	Up to 9 digits	Default: 0.00



A sale in a department, which does not have a programmed shortcut key can be executed by selling an article from this department or by choosing a department 21-99 from the external keyboard. A sale from a department, that does not have a tax group programmed, can not be executed.

3. Inventory groups Parameters

Changing the parameters of inventory groups requires a daily report with clearing.

Field No	Parameter meaning	Range	Description
1	Number of the inventory group	1 - 99	
2	Name of the inventory group	Up to 22	Default: GROUP X

		symbols	where X is the number of the respective inventory group
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4.Operators

Changing operator name or password requires a daily report with clearing.

Field No	Parameter name	Range	Description
1	Operator number	1-30	
2	Operator name	Up to 10 symbols	Default: OPERATORxx (xx-operator number)
3	Operator password	Up to 8 digits	Default: matches the operator number.

5. Date and time

The parameter indicates the current date and time and allows changing them. The new date entered can not be prior to the last date stored in the fiscal memory.

6.Names of Payment types

The ECR can work with six types of payments. In "REGISTERING" mode the first five can be selected from the keyboard and the last one only from an external keyboard. Changing the names of the different ways of payment requires a daily report with clearing.

Payment 1-"CASH" is not programmed.

Entry No	Description	Range	Comment
2	Name of payment 1	Up to 10 symbols	Default: CREDIT
3	Name of payment 2	Up to 10 symbols	Default: CHECK
4	Name of payment 3	Up to 10 symbols	Default: CARD
5	Name of payment 4	Up to 10 symbols	Default: VOUCHER
6	Name of payment 5	Up to 10 symbols	Default: COUPON

7. Texts into receipt

The ECR allows printing of up to 10 title lines and up to 10 advertising lines. Every line contains up to 24 characters. The 1st and 2nd title lines are always printed. After that the line containing the name of the tax payer is printed. The rest of the lines (from 3 to 10) are printed only if they are not empty.

Changing the text lines requires a daily report with clearing.

The programming of the parameters is divided into three submenus:

- 1. Title lines
- 2. Advertising lines
- 3. Other lines

Title lines are printed before every receipt and the advertising lines are printed after every fiscal receipt in "REGISTRATION" mode". The menu "Other lines" allows changing the text, which is printed before the number of the tax payer (can be no longer than 11 characters).

Line No	Default text-Title lines	Default text-Advertising lines
1	COMPANY ADDRESS	
2	COMPANY NAME	
3	STORE NAME	
4	STORE ADDRESS	
5		
6		
7		
8		
9		
10		

8. : Setting up the alternative currency operations

Changing this parameter requires a daily report with clearing.

Field No	Description	Range	Comment
1	Name of the main currency	Up to 3 characters	Default: JIB
2	Name of additional currency	Up to 3 characters	Default: EUR
3	Course of additional currency	Up to 6 digits format 0.00000 - 9.99999	Default:1.95583

9. Configuration

9.1. ECR Parameters

Field	Description	Range	Comment
1	ECR logical number into the shop	1÷99	Default: 1
2	ECR type	0,1	Not used
3	Drawer control	0,1	0: Opens the drawer when a payment is made; 1: Does not open the drawer when a payment is made; Default: 0
4	Receipt type	0,1	Extended print of the sales in the receipt This change requires a daily report with clearing. 0:Extended print-forbidden 1:Extended print-allowed Default: 0
5	Work with clients	0,1	0:forbidden 1:allowed When choosing this mode the accumulated turnover in the departments is printed in the daily financial report. Articles from different departments can be sold in one receipt. The tax group of the articles and departments must be the same. If it are different the article can not be sold and the ECR shows the error "Tax group forbidden". Changing this field

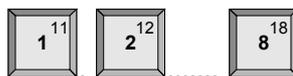
			requires a daily report with clearing. Default: 0
6	No passwords are used	0,1	Changing this field requires a daily report with clearing. 0:forbidden 1:allowed Default: 0
7	Article clearing	0,1	0: forbidden 1:allowed When 0 – the turnover of the articles is cleared by the daily report with clearing. When 1 the turnover of the articles is cleared only when a report "Sold articles" is made. Default: 0
8	Related ECR report	0,1	0: forbidden 1: allowed Default: 0
9	Related report on operators	0,1	0: forbidden 1: allowed Default: 0
10	Related report on articles	0,1	0: forbidden 1: allowed Default: 0
11	Related report on departments	0,1	0: forbidden 1: allowed Default: 0
12	Related report on inventory group	0,1	0: forbidden 1: allowed Default: 0
13	Periodic report	0,1	0: generates a report 1: Doesn't generate a report Default: 0

Field 8, 9, 10, 11 and 12 allow including additional reports, which will be printed together with the daily Z report. Before making a daily report a receipt is printed which containing all reports with the respective field equal to 1.

9.2.Receipt parameters

Field No	Description	Range	Comment
1	Printing contrast	from 0 to 20	default: 10 Restart the ECR for the change to take effect
2	Duplicate	0 or 1	0:forbidden; 1:allowed; default: 0
3	Service receipt	from 0 to 9	Number of the service receipts which can be printed after the receipt is closed. The articles are distributed by departments.
4	Article bar-code print	0 or 1	0:forbidden; 1:allowed; default: 0
5	Graphic logo	0 or 1	0: forbidden;1: allowed; default: 0 Can be loaded with EcrTool or another program. Supported format :from (384 x 96) to (384 x 340) dpi
6	Print name of client (deparment)	0 or 1	0:forbidden; 1:allowed; This field is active only if the ECR works with departments (field 5 from the ECR Parameters must have a value 1) Default: 0
7	Print of the total value in alternative currency	0, 1, 2	0:forbidden 1:prints the total value in alternative currency 2:prints the exchange rate as well Default: 0
8	Tax print	0 or 1	0:forbidden, 1:allowed Default: 0

9.3. Parameters of shortcut keys



To quickly select articles you can use the keys from the keyboard of the ECR as well as the keys from the external keyboard.

If there is no article number programmed for these keys (field 2) pressing one of them in “Registration” mode will lead to a sale from a department. Programming field 2 will initiate a sale of an article with the respective programmed number.

Field No	Description	Range	Comment
1	Key number	1 - 99	Each key has one main and one additional number. The main number is located in the center of the key. The additional number is located in the upper right corner of the key. The main number is selected by pressing the key and the additional – by pressing first  and then pressing the key with the respective additional number.
2	Article number	Up to 15 digits	If the value is 0, the key selects a department, if it is different from 0 the key selects and article with a number equal to the programmed number. Default: 0

9.4 Parameters of the keys <-%> and <+-%>.

The parameter contains 2 records – record 1 for percentage surcharges and record 2 for percentage discounts. Each record has 2 fields:

Field No	Description	Range	Comment
1	Work with keys	0 or 1	0: Allows working with a key 1: Forbids working with a key Default: 0
2	Programmed value	0.00% to 99.99%	Default: 0.00

9.5.Communication

9.5.1.Periphery

The parameter defines the characteristics of the communication ports of the ECR and the type of device connected. There are two entries:

Entry 1- for COM-1;

Entry 2- for COM-2;

Field No	Description	Range	Comment
1	Type of device connected to the COM port	From 0 to 3	0: not connected 1: connected with a bar-code reader 2: connected with a scale 3: connected with an external display Default: 0
2	Communication speed	From 0 to 9	0:1200 bps; 1:2400 bps; 2:4800 bps; 3:9600 bps; 4:14400 bps 5:19200 bps; 6:38400 bps; 7:56000 bps; 8:57600 bps; 9:115200bps; Default: 0
3	Protocol for communication with a scale	From 0 to 2	0: DATECS; 1: CAS,DIBAL;

			2: ATLAS,DIGI This field is valid only if field 1 has value 2. Default:0
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When connecting a scale to the ECR, filed 2 must be set at the same communication speed as the scale (for reference please check the documentation of the scale, for example for DATECS scales choose field 2 = 2).

9.5.2.Connection with PC

Filed No	Description	Range	Comment
1	Port number	From 0 to 2	0: PC not connected 1: PC connected to COM1 2: PC connected to COM2 Default: 1
2	Communication speed	From 0 to 9	0:1200 bps; 1:2400 bps; 2:4800 bps; 3:9600 bps; 4:14400 bps 5:19200 bps; 6:38400 bps; 7:56000 bps; 8:57600 bps; 9:115200bps; Default: 6

9.5.3.IP/Ethernet

The ECR data is entered in a local network. After changing it you need to restart the ECR.

FISCAL MEMORY MODE

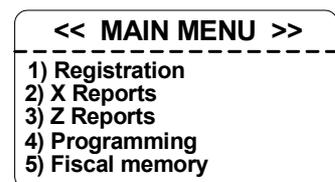
Fiscal memory mode allows to make a report of the fiscal memory, change the tax rates and to set the fiscal memory in use.



*The specific parameters are stored into fiscal memory.
The fiscal memory programming should be made by the manufacturer or by authorized service! In order to set the fiscal memory in use after the ECR purchasing and its installing into a store, it is necessary a qualified specialist from authorized service to be called. This specialist must represent an authorized service, which has a service contract with DATECS and which has a service contract with the trade organization.*

To enter "Fiscal memory" mode:

-Turn the ECR on. On the display is shown the main menu:



-Pres key  or with key  move to "5)."Fiscal memory" and

choose it with 



- Enter the password and press 

-Select one of the following options:

- 1)Report
- 2)Tax rates
- 3)Set the fiscal memory in use

Reports

You can make reports of the fiscal memory, described in chapter "FISCAL MEMORY REPORTS" in this manual.

Changing tax rates

Changing tax rates requires a daily report with clearing. Up to 30 changes per fiscal memory are possible. Entering a percentage value for the tax rate automatically allows working with it. If the value entered is 100 the work with the tax rate is forbidden. The menu for changing tax rate values allows checking the new rates by



printing them out before confirming (with the key ) or denying (with the key ) in order to write them into the FM.

Field No	Description	Range	Comment
1	Percentage for tax group "A"	0.00 ÷ 99.99	Default: 00.00
2	Percentage for tax group "B"	0.00 ÷ 99.99	Default: 20.00
3	Percentage for tax group "C"	0.00 ÷ 99.99	default: 20.00
4	Percentage for tax group "D"	0.00 ÷ 99.99	default: 7.00
5	Percentage for tax group "E"	0.00 ÷ 99.99	default: **.** forbidden
6	Percentage for tax group "F"	0.00 ÷ 99.99	default: **.** forbidden
7	Percentage for tax group "G"	0.00 ÷ 99.99	default: **.** forbidden
8	Percentage for tax group "F"	0.00 ÷ 99.99	default: **.** forbidden
9	Position of the decimal point in the article price	0 or 1	1: Price with 2 symbols after the decimal point 0: Price without a decimal point Default: 1

Fiscalization – BRINGING THE FISCAL MEMORY IN USE



In order to bring the fiscal memory in use after buying the ECR and installing it into a store, restaurant or other kind of trade organization, it is necessary a qualified specialist from authorized service to be called. This specialist must represent an authorized service, which has a service contract with DATECS and which has a service contract with the trade organization

VAT number

The text before the tax number and the number itself are entered before the fiscal memory is brought into use.

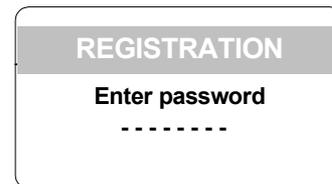
Filed No	Description	Range	Comment
1	TEXT IN FRONT OF THE TAX NUMBER	11 characters	Default: "ID number"
2	TAX NUMBER	13 characters	Default: "NOT ENTERED"



When bringing the fiscal memory in use enter the TAX number of the company. The BULSTAT code of a physical person is 10-symbol and coincides with the personal number of that person.

MODE R - REGISTRATION

- To enter Registration mode press  from the <<MAIN MENU >>.
- On the display is shown an invitation to enter a password:



- Enter a sequence of digit keys (password) and press .

KEY FUNCTIONS IN REGISTRATION MODE

 ... 	Allow direct access to the articles, stored in Parameters of shortcut keys for articles or for direct access to the departments. For instructions please see "Parameter description"-chapter. 9.3. The selected keys lead to accumulation of turnover in the customer receipt, and in the respective article/department. The value entered before selecting one of these keys is accepted as its price.  A sale with a zero price is not allowed. This will cause a sound signal and an error message "C".
	Switches to the secondary function of a shortcut key. Press the respective key to activate it.
	Specifies, that the previously entered number is a PLU-code of an item. Causes an accumulation of turnover of the selected PLU into the customer's receipt. When the PLU-code is entered, the decimal point is ignored and the value entered is assumed as an integer one.  If one of the article parameters is invalid, on the display is shown an error message: <ul style="list-style-type: none"> - "PLU code does not exist" ; - "No price"; - "Invalid parameter" etc. If the key is pressed but no code is entered, the last sale is repeated.
 	Selects "Inventory search" mode. This mode allows to search by article number, to change article price and bar-code and to sell it. (For detailed description please see "SPECIFIC WORKING CASES IN 'REGISTRATION' MODE")
	Indicates that the value entered is price. The key is used to enter a free article price. First enter the price, then press  . After that enter the article code.
	Specifies, that the value entered is a quantity. When the ECR works with a scale the pressing of that key  without prior entered a value will cause the quantity from the scale to be received.
 	When the ECR works with a scale this sequence will cause the quantity from scale 2 to be received.
	Select an article through its bar-code. Enter the bar-code number of the article and press  to sell this article.

	<p>Press this key to void a previous sale</p>
 	<p>Press this sequence to void the last but one sale in an opened receipt or to void the entire receipt. The ECR gives the following choice: -Deep void -Void everything</p> <p>To select deep void press  and re-enter the parameters of the sale. This operation can not be performed, if the sale parameters are not the same as in the sale to be cancelled. Note: The operator should enter the same parameters as they are printed in the receipt on the row which he want to cancel. If there are surcharges/discharges made over the item, they will be cancelled together with the sale cancellation.</p> <p>To execute a storno-operation consecutively press  and . The ECR requires a confirmation. To confirm press .</p>
	<p>Annuls all digits entered before a functional key pressing. Annuls any error, caused by function key pressing. The errors are presented on the display by the error message "C".</p>
	<p>Indicates the subtotal. If this key is pressed after a sale made, this will cause the subtotal of the customer's bill to be shown on the display.</p>
 	<p>Enter a text which will be printed after the receipt is closed. You can enter between 18 and 24 characters per line. In order to print the text, enter it during an opened receipt before a payment is made.</p> <p>Press  and  to enter input text mode. Use the keys described in "Registration" mode of the symbol field. The characters can be entered from an external keyboard as well. Press  to exit this mode.</p>
	<p>- Causes the customer bill to be closed and causes cash payment to be performed. If before pressing this key is entered the amount which the customer has paid in cash, they are printed both the total amount and the change - if the customer has paid in cash more money than needed. If he paid in cash less money than needed - a partial payment is performed. A mixed payment is possible. After entering a part of the amount owed and pressing the payment button, the amount and payment type are printed. On the display is shown the remaining amount owed. The receipt can be closed with a different type of payment.</p> <p>-This key is used to print a copy of the receipt. To do so the key must be pressed right after the receipt is printed. One copy can be printed (permission to print the copy is programmed in mode "PROGRAMMING"->Configuration->Receipt parameters).</p>
 	<p>Opens the drawer when a payment is initiated or the receipt is closed.</p>
	<p>Select "Payment 1". The name of the payment can be programmed in "PROGRAMMING"-> Payments. Default: „CREDIT".</p> <p>First the sum paid by the customer is entered. Then press . If the customer has paid more money than needed the ECR calculates the change "In cash"</p>
 	<p>Select "Payment 3". The name of the payment can be programmed in "PROGRAMMING"-> Payments. Default: „CARD".</p> <p>First the sum paid by the customer is entered. Then press consecutively  and . If the customer has paid more money than needed the ECR calculates the change "In cash".</p>

	<p>Select "Payment 2". The name of the payment can be programmed in "PROGRAMMING"-> Payments. Default: „CHECK”.</p> <p>First the sum paid by the customer is entered. Then press .</p> <p>If the customer has paid more money than needed the ECR calculates the change "In cash".</p>
 	<p>Select "Payment 4". The name of the payment can be programmed in "PROGRAMMING"-> Payments. Default: „VOUCHER”.</p> <p>First the sum paid by the customer is entered. Then press consecutively  and . If the customer has paid more money than needed the ECR calculates the change "In cash".</p>
	<p>Payment in alternative currency. If the customer has paid more money than needed in an alternative currency, a dialogue message suggests choosing the currency to pay the change.</p>
 	<p>Shows to the customer the sum to be paid in an alternative currency.</p>
	<p>1. The pressing of this key will cause adding a percentage surcharge to the amount of the last sale or if the key is pressed  - it adds percentage surcharge to the subtotal. The percentage value can be in the range 00.00 to 99.99.</p> <p>2. If there is no customer receipt open, this key is used for operation "RECEIVED ON" (received on amount). This can be done by entering the amount value and pressing .</p>
 	<p>The using of this sequence will cause adding a percentage surcharge to the amount of the last sale. If the key  is first pressed, a value is entered and after the  and  is used - it will cause the prior entered value to be adds to the subtotal.</p>
	<p>1. Pressing of this key will cause subtracting of a percentage discount from the amount of the last sale or if the key  - is prior pressed - it subtracts percentage discharge from the subtotal. The percentage value can be in the range 00.00 to 99.99.</p> <p>2. If there is no customer receipt open, this key is used for operation " PAID OUT' " (e.g. paid out amount). This can be done by entering the amount value and pressing .</p>
 	<p>The using of this sequence will cause the prior entered value to be subtracted from the amount of the last sale. If the key  is first pressed, a value is entered and after the sequence  and  is used - it will cause the prior entered value to be subtracted from the subtotal.</p>
	<p>Shows all sales in an open receipt on the display. Press the keys  and  to screen all sales from the receipt.</p> <p>This mode allows :</p> <ul style="list-style-type: none"> - to show all details of one sale: quantity sold, article name, single price, total value and surcharge/discount form the sale if one is made. After selecting a sale press the key  -to void a sale we have selected. Press the key . To exit this mode press .



Sales can not be executed:

- If one of the service registers of the ECR is overloaded the work can continue only after a Z report.
- If the sum of the quantity and price is more than 10 digits multiplication is not executed and an error message is shown.
- If a receipt is opened (when working with departments) and an attempt is made to sell an article with a

department parameter different from the department parameter of the first sale.

Digit keys

- In mode **R**, digit keys are used mainly for entering:
- article quantity (valid decimal point);
 - article price (valid decimal point);
 - article code (decimal point is ignored);
 - article bar-code value (decimal point is ignored);

SPECIFIC WORKING CASES IN 'REGISTRATION' MODE

1. Returning and replacing an item

The ECR allows returning and replacing an item. The amount per tax group in a customer receipt, according to which the replacement is made, can not be less than zero. Returning an article is executed with the function "Deep void".

Example: Article 123 with name "Blouse with short sleeves" and price 25 lv. is replaced with article 124 with name "Blouse with long sleeves" with price 26 lv. The customer returns article 123, pays an additional 1 lv. and receives article 124.

Action sequence and keys used for executing a replacement:

No	Action	Keys used
1	Sells article 124:	   
2	Returns article 123:	      
3	Receipt is closed with a cash payment	

2. Printing a receipt copy



Pressing the key  after a receipt is closed will print a copy of the receipt. The copy has "DUPLICATE" written on it. This document is called a "SERVICE BILL" and contains all lines printed in the receipt.

3. Using article "barcode"

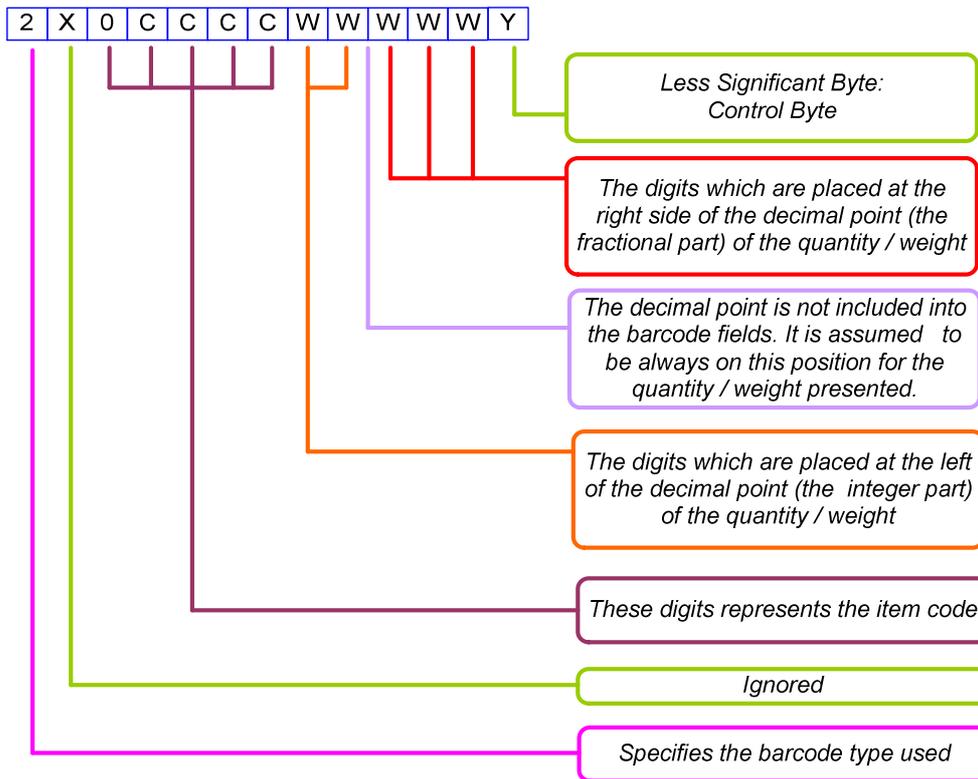
- Scan an article barcode with a barcode scanner in order to sell the article.
- Entering a barcode number from the keyboard. Enter the barcode number of an article and press



to sell the article.

- Using barcodes printed from a scale. Such a barcode can be used in the ways described above.

Barcode format , when into barcode are specified the item code and quantity / weight:



Note: This type of barcode is supported also when the barcode is entered from the keyboard; In this case the checksum should be specified, but the value is ignored;

4.External keyboard use

Using an external keyboard allows to select articles faster and easier and make sales from departments with a number above 20. All types of payment which the ECR supports are available. When you are programming symbol fields in Programming mode (EDIT mode) the symbols can be selected through the keys of the external keyboard.

The external keyboard is connected to the ECR. After turning the ECR on there is a sound signal from the keyboard - the ECR is ready for work. The location of the keys is as shown below:

TL	PY1	PY2	PY3	PY4	PY5	*		TXT		
61 Q	62 W	63 E	64 R	65 T	66 Y	67 U	68 I	69 O	70 P	
21 A	22 Б	23 В	24 Г	25 Д	26 Е	27 Ж	28 З	29 И	30 Й	
71 A	72 S	73 D	74 F	75 G	76 H	77 J	78 K	79 L	80	
31 K	32 Л	33 M	34 H	35 O	36 П	37 P	38 C	39 T	40 Y	
81 Z	82 X	83 C	84 V	85 B	86 N	87 M	88 <	89 >	90 @	
41 Ф	42 X	43 Ц	44 Ч	45 Ш	46 Щ	47 Ъ	48 Ь	49 Ю	50 Я	
91	92 "	93 &	94 #	95 =	96 (97)	98 ;	99 :	20	
51 Alt	52 !	53 ?	54 %	55 *	56 -	57 +	58 ,	59 .	60	

5.Article "SEARCH" mode

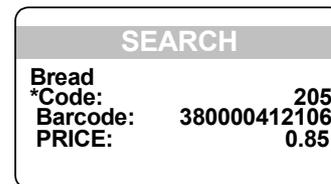
To enter "SEARCH" mode type the article number and press the keys



and



. On the display is shown information about the article:



If no article number is entered the parameters of the first programmed article will be shown on the display. If "*" is indicated in the beginning of the lines "Code:", "Barcode:" or "Price:" this means that the article parameter can be changed. When entering this mode the symbol for changing a value "*" is positioned before the line "Code".



This allows choosing a different article code. To change the number of an article use the keys and to search for an article with a higher/ lower number or scan a barcode with a barcode scanner.



To select "Barcode:" press . You can enter the new barcode from the ECR keyboard or by scanning it with a barcode scanner.



To select "Price:" press and enter the new price.

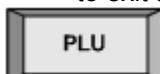


To select "Code:" press .

There are two ways to exit the modes described above:



-press to exit the mode without selling an article.



-press twice to exit the mode and sell the article.

MODE X - ECR REPORTS

Select mode

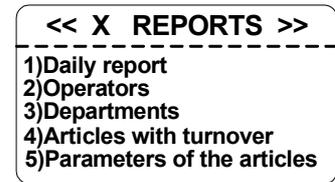
This mode enables printing reports without clearing. In order to access the mode:

- from <<MAIN MENU >> press key .
- On the display is shown an invitation to enter the operator's password:



- Enter the password and press .

- The reports that can be printed are shown on the display:



- To choose a report select it with the keys  and  and press .

Types of X reports

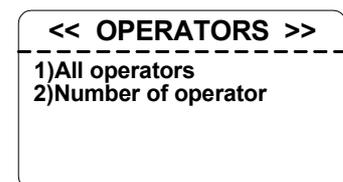
1. Daily financial report

It includes:

- the turnovers and the tax debts for each tax group
- the turnovers divided by sales, surcharges and discharges
- the turnovers divided by payment types
- the turnovers from 'void'/'correction' operations
- 'Paid-Out' amounts /'Received-on-Account' amounts

2.Report of the turnovers by operators

On the display is shown:



- The report can be executed for all operators (key ) or only for one operator (key ). The report includes:
 - the turnovers divided by sales, surcharges and discharges
 - the turnovers divided by payment types
 - the turnovers from 'void'/'correction' operations
 - 'Paid-Out' amounts /'Received-on-Account' amounts

3. Report of the turnovers by departments and by item groups.

The report includes:

- the turnovers divided by departments
- the total amount of the departments turnover
- the turnovers by items groups
- the total amount of the turnover for the item groups

4.Report of the turnover by articles

Contains data for articles with accumulated turnover or with quantities sold. When choosing this report on the display is shown:

<< ARTICLES >>

1)All articles
2)By number

The report can be executed for all articles (key 1) or for a range of articles (key 2). Select the first and last articles of the report range.

The following are printed:

- PLU-code
- Name
- Tax group
- Quantity sold
- Turnover by article

5. Reporting the programmed parameters of the articles

Only valid items (with non-space names) are reported. When choosing this report on the display is shown:

<< PARAM. - ARTICLES >>

1)All articles
2)By number

The report can be executed for all articles (key 1) for a given items range (key 2). Select the first and last articles for the range.

6. Periodic reports

The reports are printed only if the access to them is programmed. (PROGRAMMING mode-> Configuration-> field Periodic reports = 1). They show the total values of the ECR registers, departments and inventory groups for a selected period.

MODE Z – REPORTS WITH CLEARING

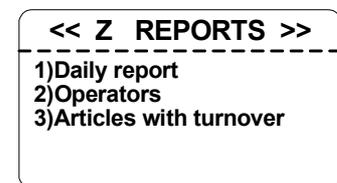
Select mode

In order to access the mode:

- from <<MAIN MENU>> press key .
- On the display is shown an invitation to enter an operator's password:



- Enter the password and press .
- The reports that can be printed are shown on the display:



- To choose a report select it with the keys  and  and press .

Types of Z reports

1. Daily report and clearing

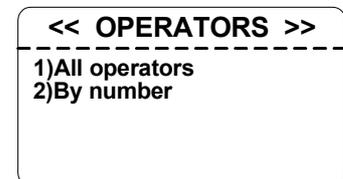
After the reports are printed, the registers involved are cleared automatically:

- the turnovers and the tax debts for each tax group;
- the turnovers by sales, surcharges and discharges;
- the turnovers divided by payment types;
- the turnovers from 'void'/'correction' operations;
- 'Paid-Out' amounts /'Received-on-Account' amounts

After the report is printed the data is written in a block of the fiscal memory and the registers are cleared automatically. If clearing the articles is selected from "Programming" mode after printing a daily financial report the article turnover is not cleared.

2. Report of the turnovers by operators

On the display is shown:



The report can be executed for all operators (key ) or only for one operator (key ). The following are printed and cleared:

- the turnovers divided by sales, surcharges and discharges;
- the turnovers divided by payment types;
- the turnovers from 'void'/'correction' operations;
- 'Paid-Out' amounts /'Received-on-Account' amounts

3. Report of the turnover by articles

Contains data for articles with accumulated turnover.

The report can be executed for all articles (key ) or for a given range of articles (key ). Select the first and last articles for the range.

The following are printed:

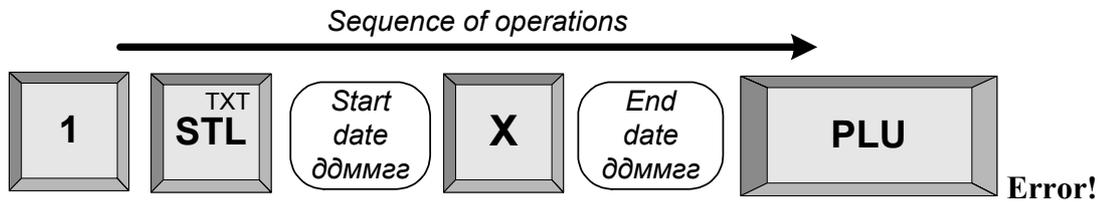
- PLU-code
- Name
- Tax group
- Quantity sold
- Turnover by article

REPORTING THE FISCAL MEMORY

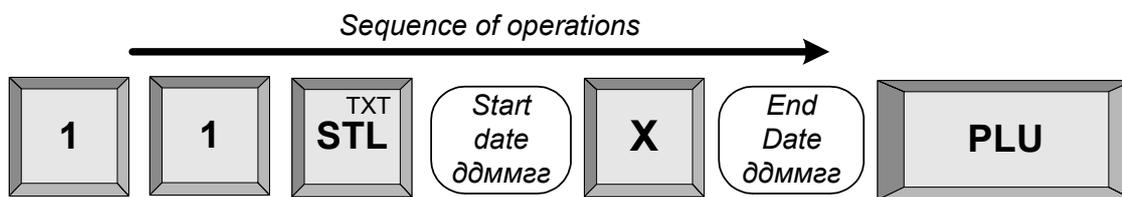
STANDARD

The fiscal memory can be reported through the standard key sequences. For this purpose a X or Z mode must be accessed (according the written above). The following reports can be made for a fiscal memory blocks:

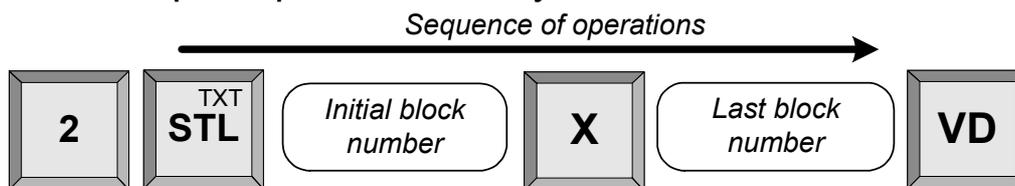
1. Detailed report for period determined by date to date



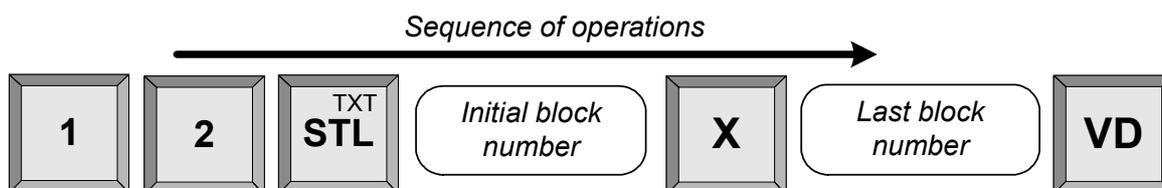
2. Short report for period determined by date to date



3. Detailed report for period determined by block to block.

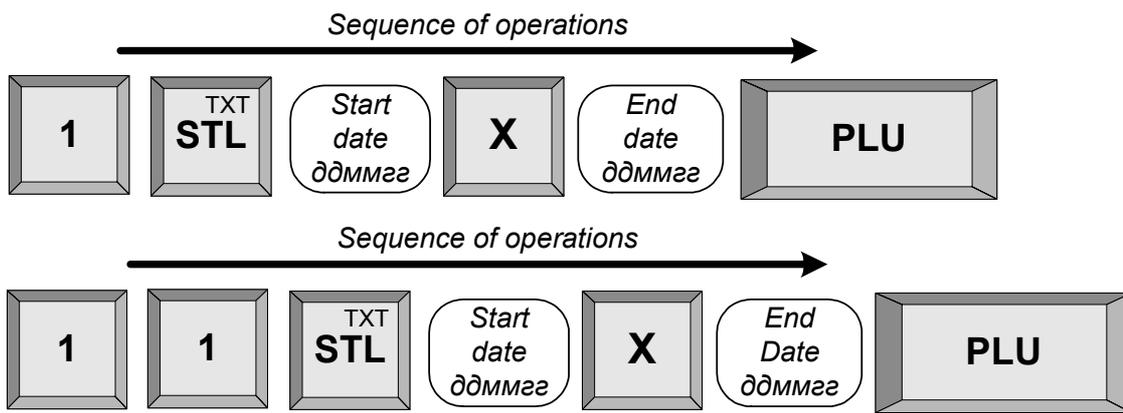


4. Short report for period determined by block to block.

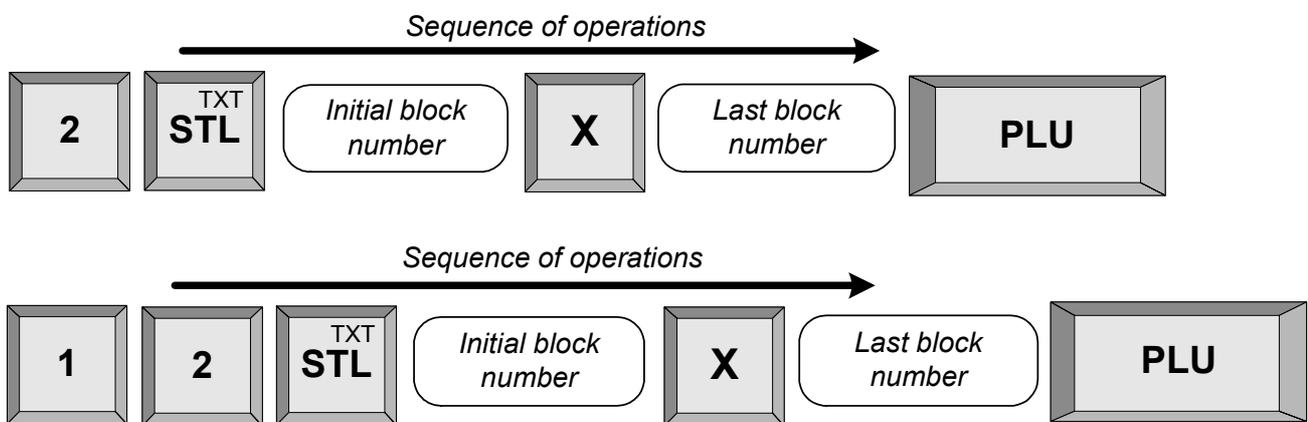


PERIODIC REPORT OF TURNOVER BY TAX GROUPS

1. Report of the fiscal memory for period determined by date to date



2. Report of the fiscal memory for period determined by block to block



OTHER MODES

Connection with PC

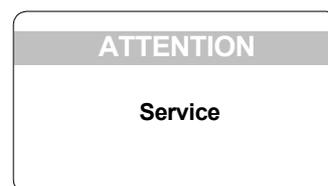
This mode enables to program, make reports and sales from the ECR with the help of a computer, connected to it (supports the commands for a fiscal printer described in the document "IU_D500PL-BUL-Fprotocol").

Before starting work it is necessary to program the parameters of the COM-port used for connection to the PC.

SERVICE MODE

The ECR DP-500Plus has an early warning system informing the customer when servicing is needed. The service parameters are defined in service mode – service date and message. If a date for service maintenance is entered, 7 days prior to this date, each time you turn the ECR on there will be a warning message on the display (the service technician can enter a message up to 5 lines long).

On the day defined in the ECR as service day after each customer receipt a service receipt with a service message will be printed. After servicing the ECR the service messages will no longer appear.



CONTROL TESTS

To access "Test" mode from <<MAIN MENU>> press .

The tests are activated with the respective key:

Test number	Description
1	Printer test
2	Display test
3	Keyboard test
4	RAM Memory test
5	Flash Memory test
6	Test - reading from the fiscal memory
7	Test - writing into the fiscal memory
8	Full FM test
9	Clock test - the current date and time will be shown till 1 minute expires from the beginning of this test or till any key is pressed.
10	Print the parameters, identifying the ECR and the Check sum of the Firmware.
11	Cyclic – all tests from 1 ÷ 6,10 are performed
12	COM port test

POSSIBLE PROBLEMS AND METHODS FOR THEIR ELIMINATION

No	Error code	Causes of errors and opportunities for their removal
1.	The operation cannot be executed	The selected sequence of keys can not be executed
2.	PLU code doesn't exist	Invalid PLU code. Enter a valid PLU code.
3.	TAX group is forbidden	Attempt to make a sale from a forbidden tax group
4.	There isn't price	Enter a price (for example for an article with price 2).
5.	An invalid parameter	The entered parameter is invalid.
6.	Overflow turnover of the article.	Make an article report with clearing
7.	Overflow turnover of the ECR register	Make a daily report with clearing
8.	Overflow register of receipt	The maximal number of sales in the customer receipt is reached. Close the receipt. Open a new receipt.
9.	Receipt is open	An attempt to exit registration mode while there is a customer receipt still open.
10.	Receipt is closed!	A key for making a payment is pressed after the receipt is closed.
11.	No cash!	The amount entered is bigger than the amount available in the register ('Paid-Out' amounts)
12.	Payment begins	An attempt for a sale while a payment is initiated. Close the receipt and open a new one or void the receipt and repeat the sales.
13.	Maximal number of sales	The maximal number of sales in the customer receipt is reached. Close the receipt. Open a new receipt.
14.	There aren't sales	An attempt to make void with no receipt open.
15.	Possible negative turnover!	The operation replacement of article is not possible because a negative turnover in the tax group will be accumulated.
16.	The PLU data base is full!	The article data base is full and the article can not be stored
17.	PLU code exist!	
18.	BARCODE exist!	The barcode already exists for another article.
19.	BARCODE doesn't exist!	The barcode is not entered into the data base.
20.	Error in the PLU database!	Data base structure is damaged. Service intervention is needed.
21.	There isn't fiscal memory	Service intervention is needed
22.	Error in fiscal memory	Service intervention is needed
23.	Fiscal memory is full!	Service intervention is needed
24.	Memory failure	Service intervention is needed
25.	No paper! Load paper and press (C) !	Replace the paper roll with a new one
26.	No journal paper! Load paper and press (C)!	Replace the journal paper roll with a new one